

REMARKS

In the above-referenced Office Action the Examiner objected to the drawings under 37 CFR 1.83(a) because they fail to show "28" airflow as described in the specification. The Examiner stated, "Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "header" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held in abeyance."

The Examiner is respectfully requested to withdraw his objection to the drawings in view of the above amendment to the specification and claims. It respectfully submitted that the showing of a header is not essential to an understanding of the invention in a person skilled in the heat exchanger art.

Now turning to the more substantive issues the Examiner rejected Claims 1-15 under 35 U.S.C. 102(b) as being anticipated by Hagenmeister(U.S. Patent 4,815,535), stating "Hagenmeister discloses a method of at least one of increasing airflow around a plurality of tubes in a heat exchanger, and increasing a web in a header around such plurality of tubes, the method comprising the steps of: a) providing a predetermined plurality tubes (8) having a predetermined end configuration; b) providing a header having a predetermined number of openings, in a predetermined staggered array, corresponding to the predetermined plurality of tubes, disposed in the heat exchanger; and c) securing an end of each predetermined plurality of tubes into the predetermined number of openings in the header; and wherein configuring of the predetermined number of openings is created substantially identical to the predetermined end configurations the predetermined plurality of tubes (Figs 1 and 2; col. 2, lines 23-28)."

Additionally, the Examiner rejected Claims 16-19 under 35 U.S.C. 103(a) as being unpatentable over Hagenmeier (U.S. Patent 4,815,535), stating "Hagenmeier fails to teach the steps of creating fluid seal and fluid seal is accomplished by at least one mechanical (rolling and machining) and non-mechanical bond (at least one of welding, brazing and adhesive).

Official Note is taken that creating fluid seal and fluid seal is accomplished by at least one mechanical (rolling and machining) and non-mechanical bond (at least one of welding, brazing and adhesive) is well known in the art and it would have been obvious to one."

Claim 1 has been amended to specifically recite "...a predetermined plurality of tubes having a predetermined end configuration and being substantially unobstructed along a length thereof;"...

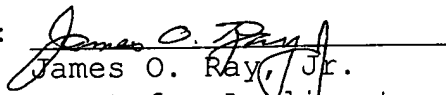
Clearly this is not taught nor suggestion by the Hagemeister reference cited by the Examiner. Accordingly, the Examiner is respectfully requested to withdraw his rejection to claims 1-19.

In the event the Examiner has further difficulties with the allowance of the application, he is invited to contact the undersigned attorney by telephone at (412)380-0725 to resolve any remaining questions or issues by interview and/or by

Examiner's amendment as to any matter that will expedite the completion of the prosecution of the application.

Respectfully submitted,

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